Testing Lab 2 - Card Game (Poker&Blackjack)

Cards API (that's an example, you can create your own if you want): https://deckofcardsapi.com/

Instructions

Implement a Poker or Blackjack game and make it robust !
No UI is actually needed for this lab. (You can if you want, though)

Basic Requirements

1. Create a card game using a Card Service
   - Write tests using Card Service doubles
   - Test game rules in isolation from card generation
2. Test core game logic:
   - Blackjack:
     - Score calculation (Ace = 1 or 11)
     - Bust conditions
     - Dealer logic
   - Poker:
     - Hand evaluation
     - Winning hand determination
     - Betting logic

Intermediate Requirements

1. Implement game state management:
   - Track player hands
   - Track game status (dealing, player turn, game over)
   - Handle player actions (hit/stand or bet/fold)
2. Test using:
   - Mocks for state transitions
   - Spies for method call order
   - Test doubles for player decisions

> The idea here is to train on multiple test double types

Advanced Requirements

1. Add game statistics and persistence:
   - Track wins/losses
   - Save game history
   - Load previous games
2. Test persistence layer using:
   - Mock storage service
   - Test game reconstruction
   - Verify error handling